Pinellas Plant History & Information Used to Process EEOICPA Claim Requests

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U.S. DEPARTMENT OF ENERGY | Legacy Management

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Overview

- History of the Pinellas Plant
- Pinellas Record Holdings
- Support for Pinellas EEOICPA Claims

Background

- In 1942, the U.S. began developing technology to produce nuclear weapons under the U.S. Army Corps of Engineers' Manhattan Engineer District
  - Known as the Manhattan Project
  - Facilities established to develop nuclear weapons
  - In 1945, the first atomic bombs were used to end World War II
    - "Little Boy" dropped on Hiroshima, Japan
    - "Fat Man" dropped on Nagasaki, Japan

"Little Boy" and "Fat Man"

Background (cont'd)

- After World War II ended, there was still a threat of nuclear weapons in enemy hands
  - The Soviet Union had begun developing its own atomic bomb
  - As tensions grew between the U.S. and the Soviet Union a new "war" began known as the Cold War
- In 1946, nuclear weapons development and production was transferred to a newly created civilian organization called the Atomic Energy Commission (AEC)
- AEC developed and managed a network of research, manufacturing, and testing sites
  - Focus was on building a nuclear weapons stockpile

Nuclear Weapons Complex

Nuclear Weapons Production Processes

Step	Process	Major Sites
1	Uranium Mining, Milling, and Refining	Uranium milling and processing sites, commercially-owned mines and mills, government-owned mills, foreign suppliers, Fernald, Middlesex, Weldon Spring, Oak Ridge, Paducah, Portsmouth
2	Isotope Separation	Oak Ridge, Paducah, Portsmouth, Savannah River
3	Fuel and Target Fabrication	Savannah River, Fernald, Ashtabula, Hanford, Oak Ridge
4	Reactor Operations	Hanford, Savannah River

Nuclear Weapons Complex

Nuclear Weapons Production Processes (cont'd)

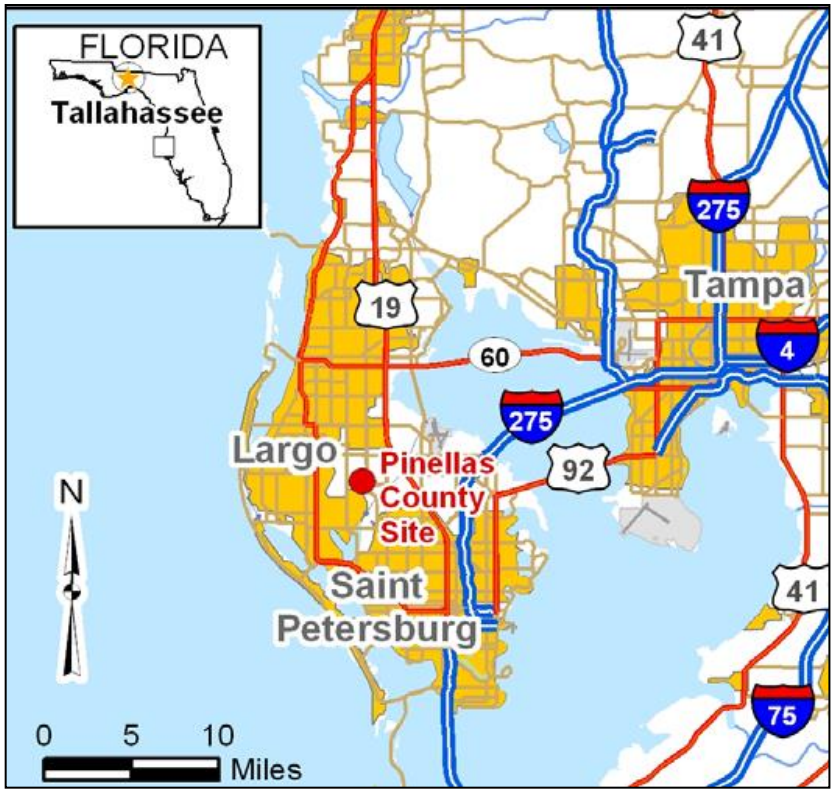
Step	Process	Major Sites
5	Chemical Separations	Hanford, Savannah River, Idaho
6	Weapons Component Fabrication	Pinellas, Rocky Flats, Hanford, Los Alamos, Oak Ridge, Mound, Savannah River
7	Weapons Operations	Pantex, Oak Ridge, Mound, Kansas City, Sandia
8	Research, Development, and Testing	National Laboratories: Los Alamos, Lawrence Livermore, Sandia (New Mexico and California) Test Sites: Nevada Test Site, Bikini and Enewetak Atolls; Christmas and Johnston Islands, Tonopah Test Range, Salton Sea Test Base

Establishing the Pinellas Plant

- With Cold War tensions rising, the U.S. had an urgent need for a facility to fabricate weapons components
- Site Selection Criteria
  - Good labor supply
  - Best possible climate for uninterrupted and rapid construction of the facility

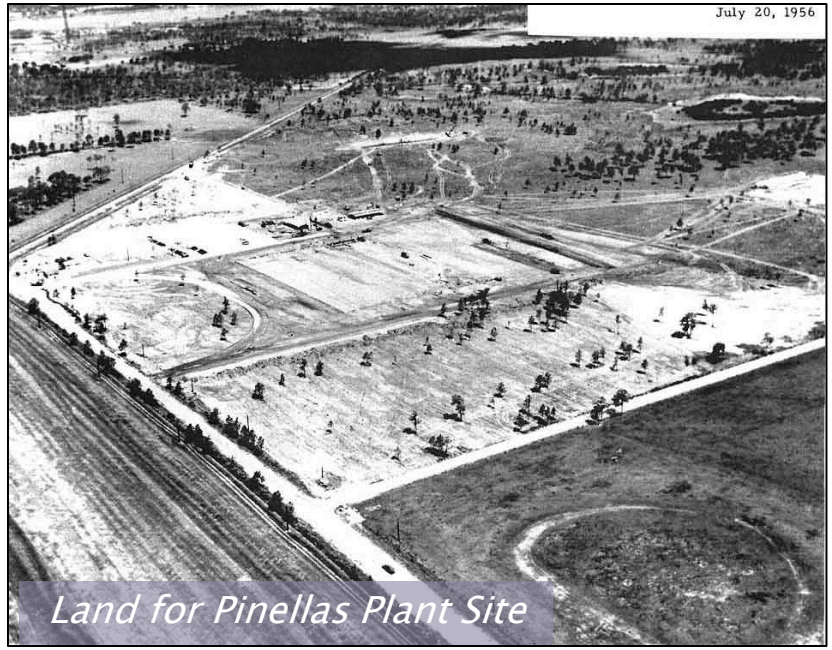
Pinellas Plant Location

- The site selected for the new Plant was in Pinellas County at Largo, Florida



Pinellas Plant Site

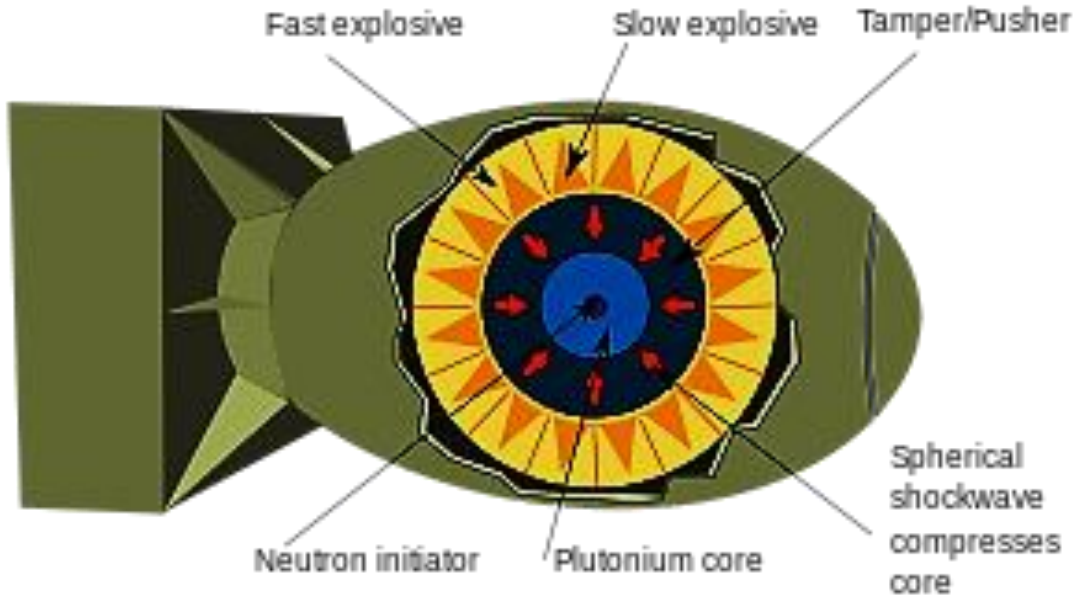
- In 1956, the Pinellas Plant was built on approximately 100 acres of land in a sparsely populated area of Largo, Florida
- The land was previously used as a dairy farm



Land for Pinellas Plant Site

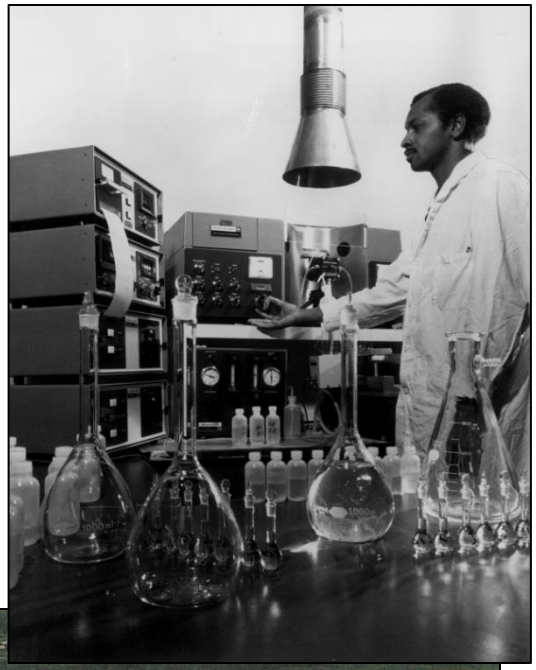
Pinellas Plant Mission

- The primary mission of Pinellas Plant was to produce precisely timed neutron generators
- The purpose of this internal component was to start the chain reaction in the nuclear weapon serving as a “trigger” for detonation



Pinellas Plant Mission (cont'd)

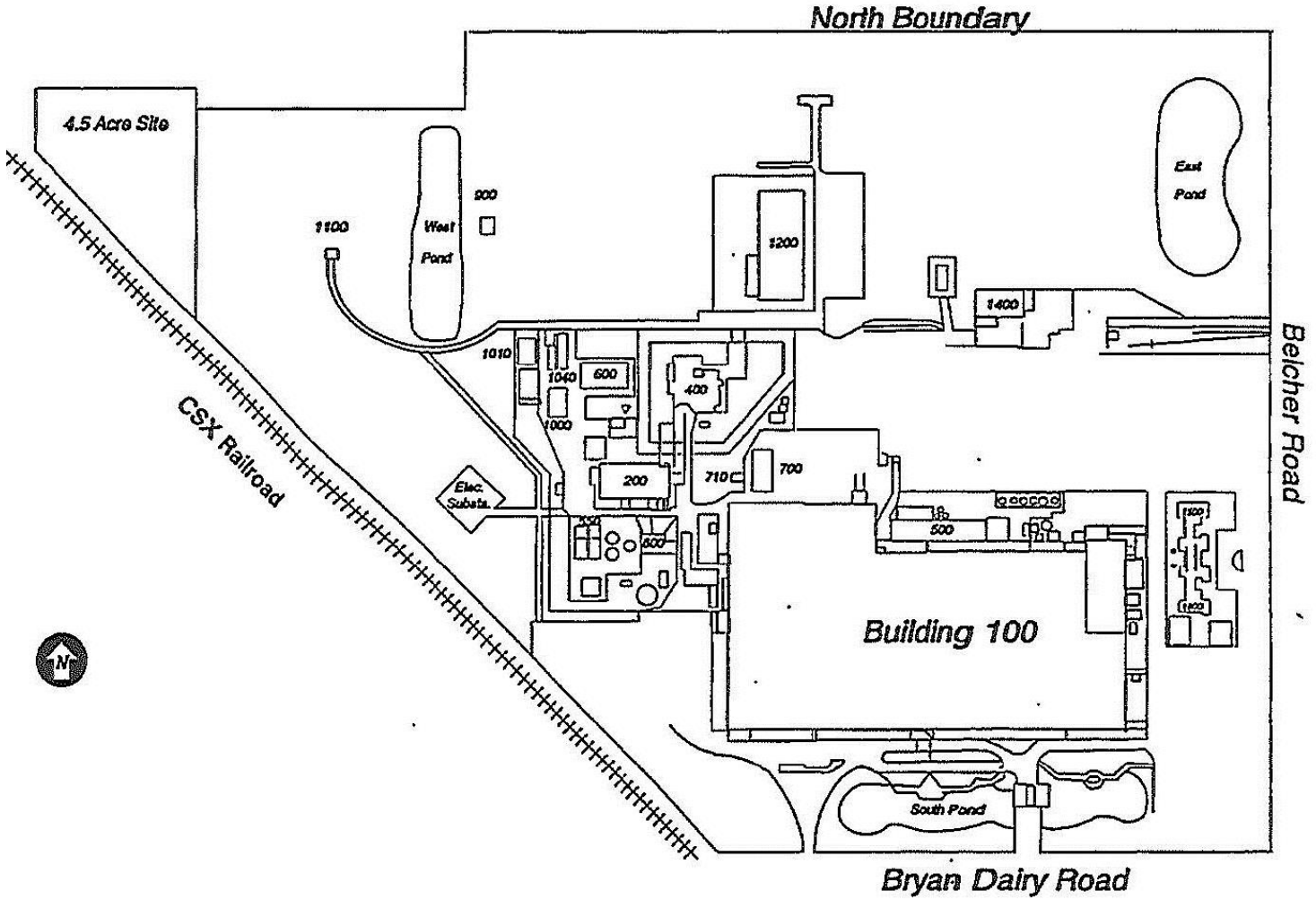
- Specialized electronic and mechanical nuclear weapons components
  - Neutron detectors
  - Radioisotopic thermoelectric generators
  - Lightning arrester connectors
  - Thermopiles
  - Specialty capacitors and switches
  - Sophisticated product testers
- Test laboratories were used to evaluate gases, metals, ceramics, and other materials



Pinellas Plant Mission (cont'd)

- ***Non-weapons*** related products and technology
  - Battery-life technology
  - Research of environmentally safe solvents to replace hazardous solvents for cleaning and coating applications
  - Ultra-clean, high-vacuum technologies
  - Test equipment
  - Specialized electronic components such as lightning arresters, capacitors, vacuum switches, crystal resonators, and shock transducers
  - Sophisticated, computer-aided engineering

Pinellas Plant Site Layout



Pinellas Plant Building Summary

Building	Function
Building 100 – 1st floor	Offices/Production/Laboratory
Building 100 – 2nd floor	Offices/Utilities
Building 100 – Mezzanines	Offices
Building 200	Environmental Testing
Building 400	Small Business
Building 500	Utilities/Deionized Water Facility
Building 550	Industrial Wastewater Neutralization Facility
Building 600	Chemical Storage
Building 700	Vehicle/Fire Maintenance
Building 710	Maintenance Shed

Pinellas Plant Building Summary (cont'd)

Building	Function
Building 800	Linear Accelerator
Building 900	Fire Training
Building 1010	New Container Storage
Building 1000/1040	Waste Storage/Management
Building 1100	Special Storage
Building 1200	Security (County Use)
Building 1400	Remote Receiving
Building 1500/1600	Partnership School/Child Development Center
Hydrogen Storage Tank Facility	Bulk Gas Storage

Pinellas Site Closure

- End of Cold War brought an end to the weapons mission
- 1994 – Nuclear weapons component production at the Pinellas plant ended
- 1995 – Department of Energy sold the facility to the Pinellas County Industrial Council

New Mission: Environmental Cleanup

- 1985 – 1997
  - Removal of soil and buried drums containing plant waste
  - Groundwater treatment

Pinellas Site Today

- In 2001, the industrial complex became the Young-Rainey STAR Center
- Today the site houses more than 30 tenants
  - Includes a variety of manufacturing operations
  - About 1,600 employees
- The nation's 1st successful conversion from a former DOE defense manufacturing facility to a commercial, high-technology center

The Pinellas Plant and Its Contractors

- **Prime Contractors**
  - **General Electric Company**
  - **Martin Marietta (also known as Lockheed Martin Specialty Components, Inc.)**
- **Employment at the plant site reached its peak in 1992 with more than 2,000 workers**
- **The potential for beryllium exposure existed at the site throughout the period of operations due to beryllium use, residual contamination, and decontamination activities**

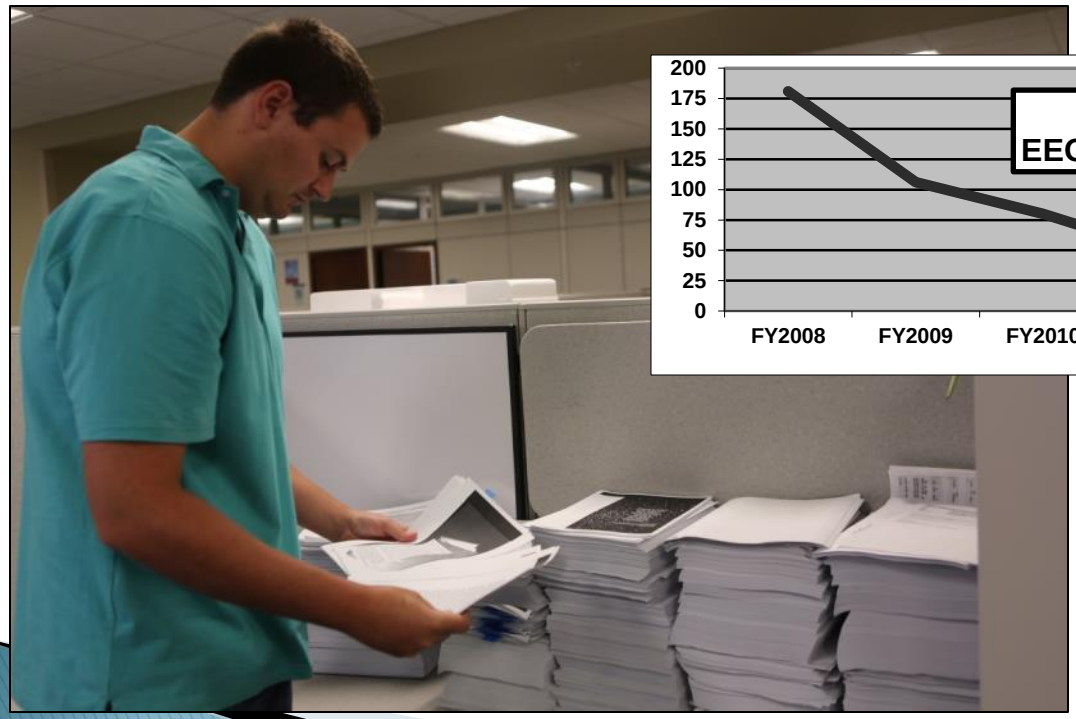
- EEOICPA Coverage
  - Operations & Remediation: 1957–1997, 1999, 2008–2009
- Contractors
  - General Electric Company: 1957–1992
  - Lockheed Martin Specialty Components, Inc.: 1992–1997
  - MACTEC Environmental Restoration Services: 1999
  - S. M. Stoller Corporation: 2008–2009

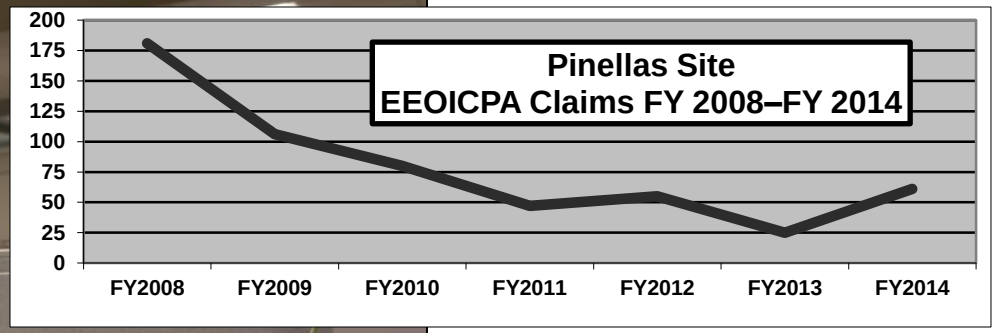
Pinellas Records

- The DOE Office of Legacy Management (LM) manages hard copy and electronic records for Pinellas
  - About 1,000 cubic feet of records at the LM Business Center in Morgantown, West Virginia, and at the LM Grand Junction, Colorado, office
  - 154 cubic feet of permanent records at the Atlanta Federal Records Center
  - About 29,000 electronic records
- Collections include operational and site cleanup records, environmental monitoring records, and personnel information

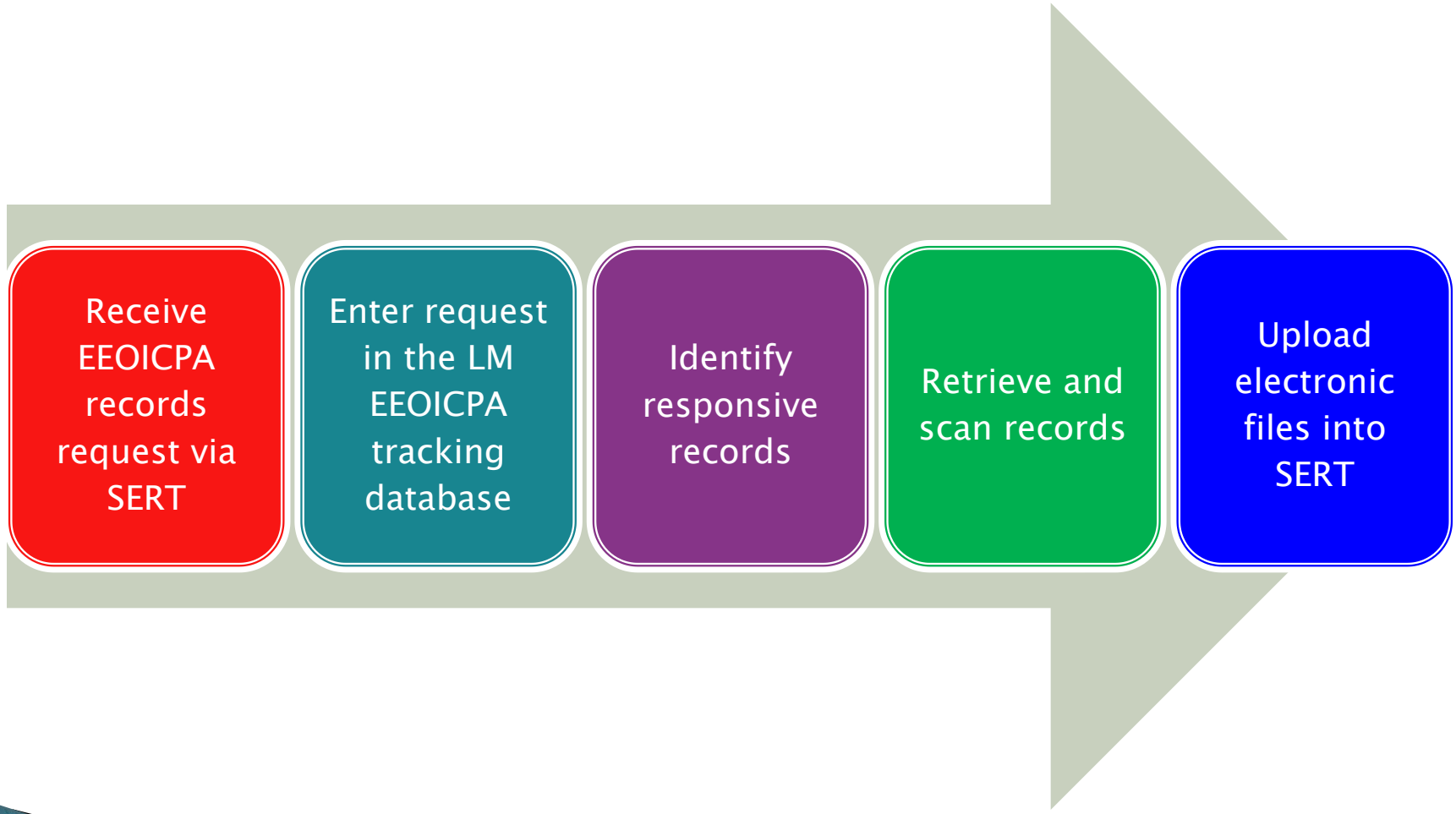
Requests for Information

- LM has recorded more than 650 Pinellas records requests
- The majority of Pinellas records requests are to support EEOICPA claims





EEOICPA Claims Processing



Information Sent for EEOICPA on Parts B and E

- Part B – (DOL Employment Verification)
  - Employment dates if available
  - Medical, radiological, industrial hygiene, and personnel records, as needed
- Part B – (NIOSH)
  - Radiological dose, x-ray results, industrial hygiene, and medical records
- Part E – Document Acquisition Requests
  - Records per DOL requests (e.g., personnel, industrial hygiene, medical, radiological dose, and job descriptions)

Pinellas Records Searches

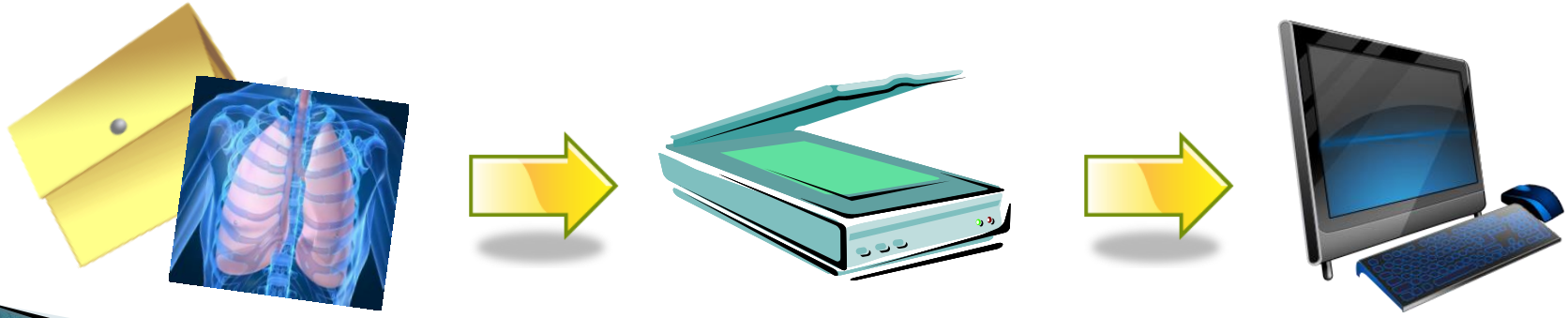
- Pinellas records are searchable through LM's electronic recordkeeping system
- Pinellas records include:
  - Personnel Records
  - Medical Records
  - Radiological Information
  - Industrial Hygiene Records
  - Limited Job Descriptions
- Records are in electronic and paper form

Record Process Improvements

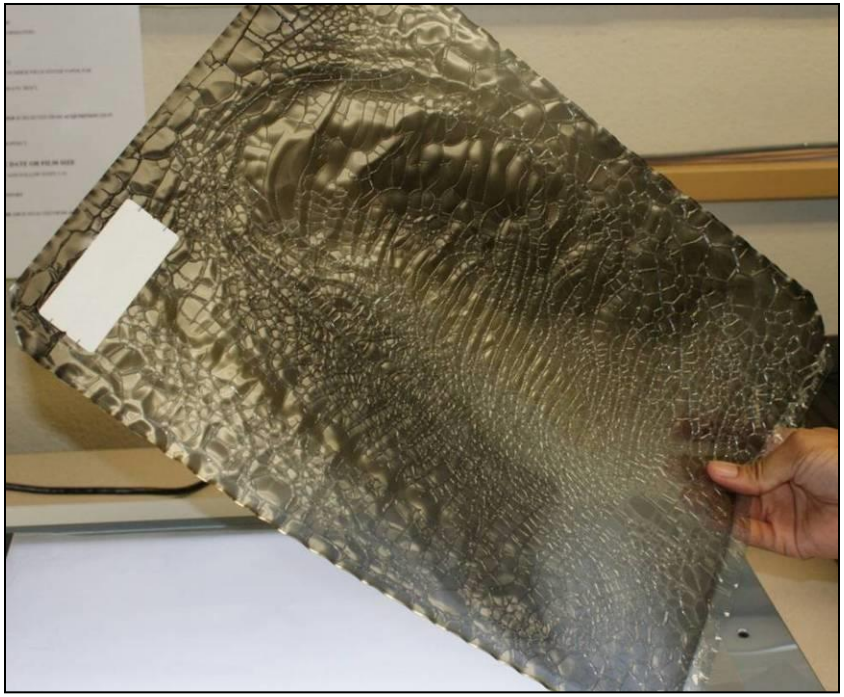
- Finding aids housed in the LM electronic recordkeeping system provide a single, consolidated search tool for locating responsive documents
- More comprehensive indexing of Pinellas records to improve records retrieval
- Developed a centralized tracking system to manage the processing of EEOICPA claims

Process Improvements (cont'd)

- LM successfully completed a major project to digitize nearly 400,000 deteriorating medical X-rays, including x-rays for former Pinellas workers
- The x-rays were in various stages of "vinegar syndrome" deterioration, a chemical process that destroys media
- Digital images and metadata were uploaded to the electronic recordkeeping system to enhance records retrieval



Deteriorated Film



Electronic Image

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Pinellas Plant

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http://energy.gov/lm